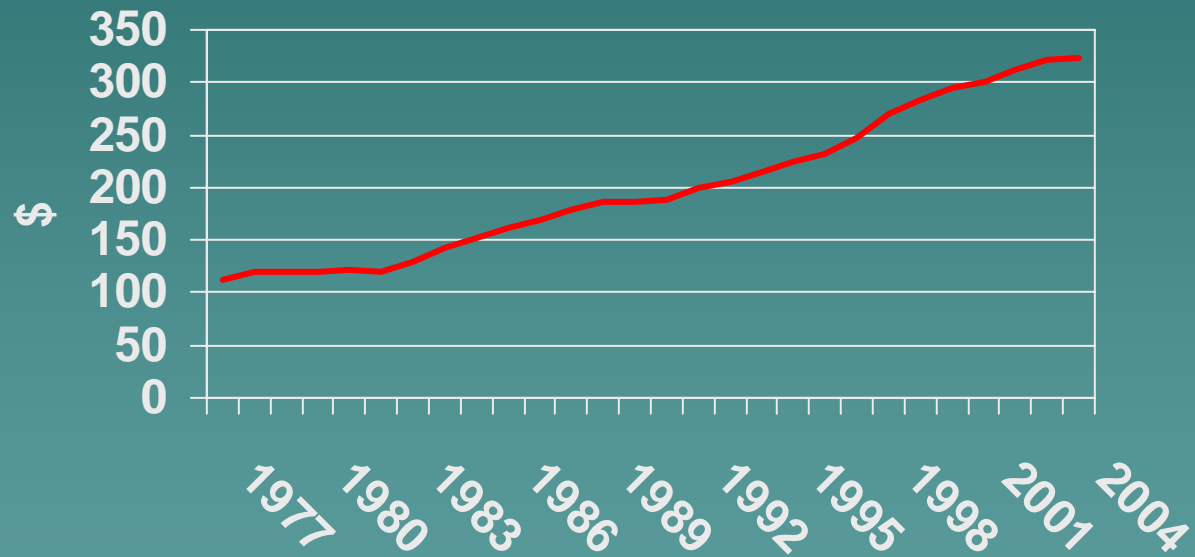


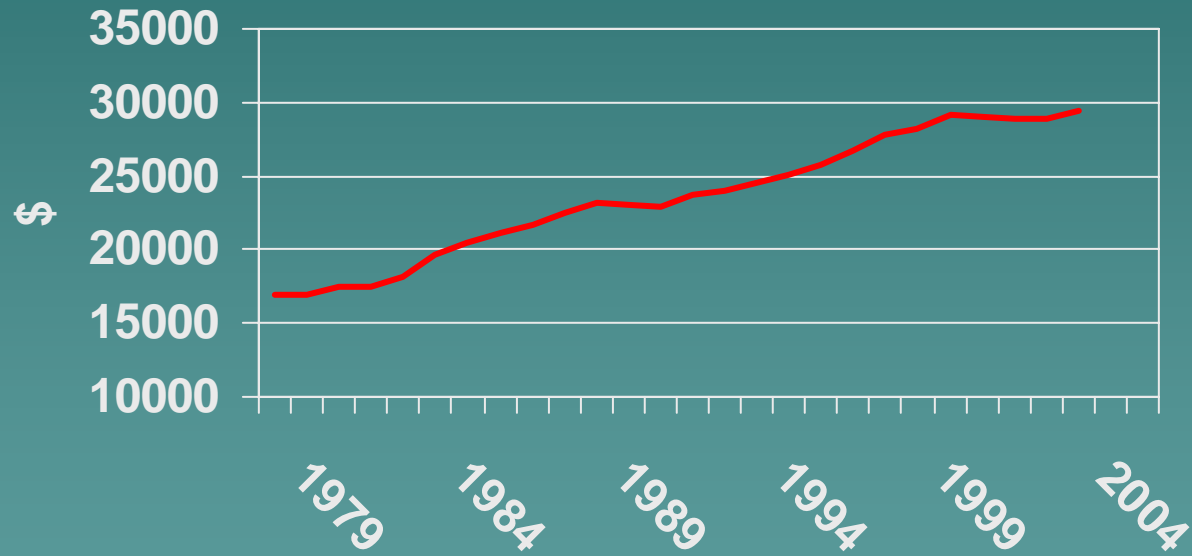
THE CHANGING NORTH CAROLINA ECONOMY: Forces, Prospects, Issues

Michael L. Walden
Reynolds Distinguished Professor
North Carolina State University

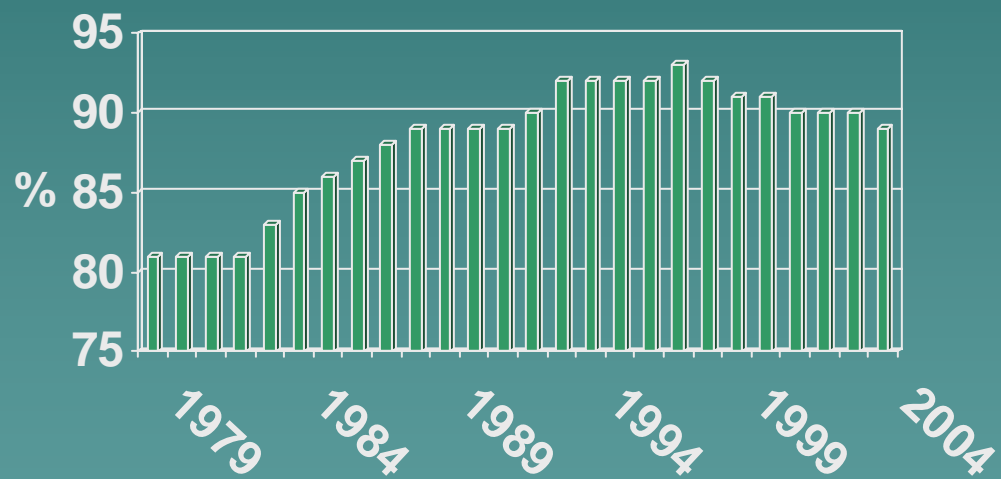
N.C. Real Gross State Product (\$ bil.)



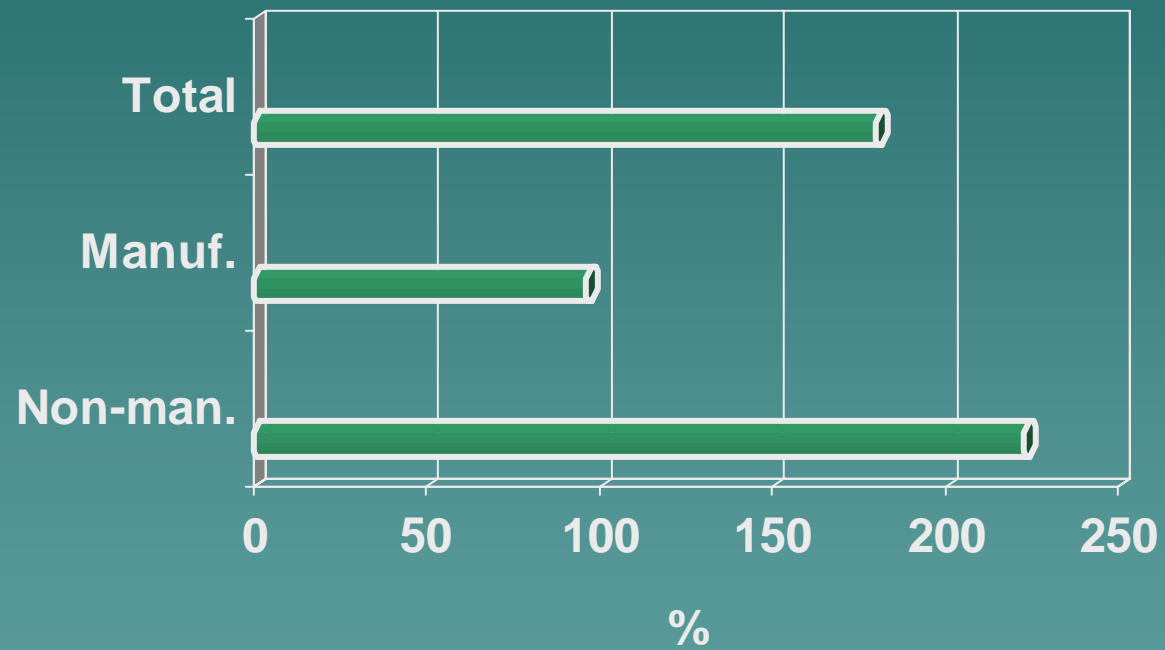
NC Real Personal Income Per Capita



NC Personal Income Per Capita as % of US Personal Income Per Capita



Change in NC Real GSP, 1977-2002



Production Indices (2000=100)

	1977	2000	2002
Furniture	75	100	84
Tobacco	686	100	110
Textiles	84	100	76
Apparel	78	100	97

Production Indices (2000=100)

	1977	2000	2002
Electronic Equip.	7	100	85
Vehicle Parts	18	100	101
Machinery	7	100	92
Chemical Prods.	19	100	131

NC Job Changes by Industry, 1990-2004

Agriculture	-17%
Manufacturing	-40%
Construction	+29%
Services	+34%

NC Job Changes by Occupation, 1990-2000

Service	+ 44%
Mgmt & Professional	+ 40%
Transportation	+ 26%
Sales & Office	+ 12%
Factory	- 27%
Farm & Forestry	- 51%

FORCES BEHIND ECONOMIC CHANGE

CYCLICAL

STRUCTURAL

BUSINESS CYCLE IS MORE VOLATILE IN NORTH CAROLINA

Payroll Job Changes (%)

	NC	US
1990's Recession	-1.9	-1.1
1990's Expansion	+29	+22
2000's Recession	-2.4	-1.2
2000's Expansion	0.7	1.2
(2004)	(2.0)	(1.7)

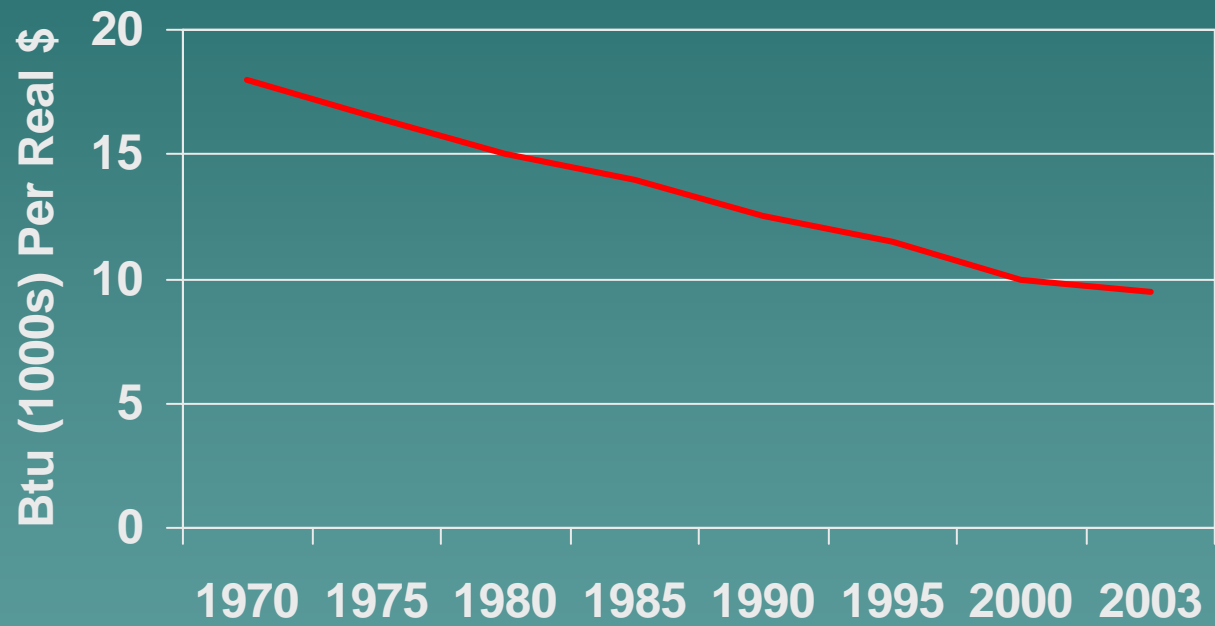
STRUCTURAL FORCES

- * Increasing returns to education
- * Reduced transportation and communication costs
- * Reduced trade barriers
- * Increased spending on services

Earnings Ratios, Ages 25-34

	1993	2002
High Sch./Dropout	1.40	1.37
Assoc. Deg/High Sch.	1.34	1.17
Bach. Deg/Assoc. Deg	1.33	1.39
Mast. Deg/Bach. Deg	1.13	1.14
Prof. Deg/Mast. Deg	1.33	1.55

Energy Use Per Dollar of GDP



Cost of Transmitting Information

Cost of transmitting 1000 words:

1970: \$0.01

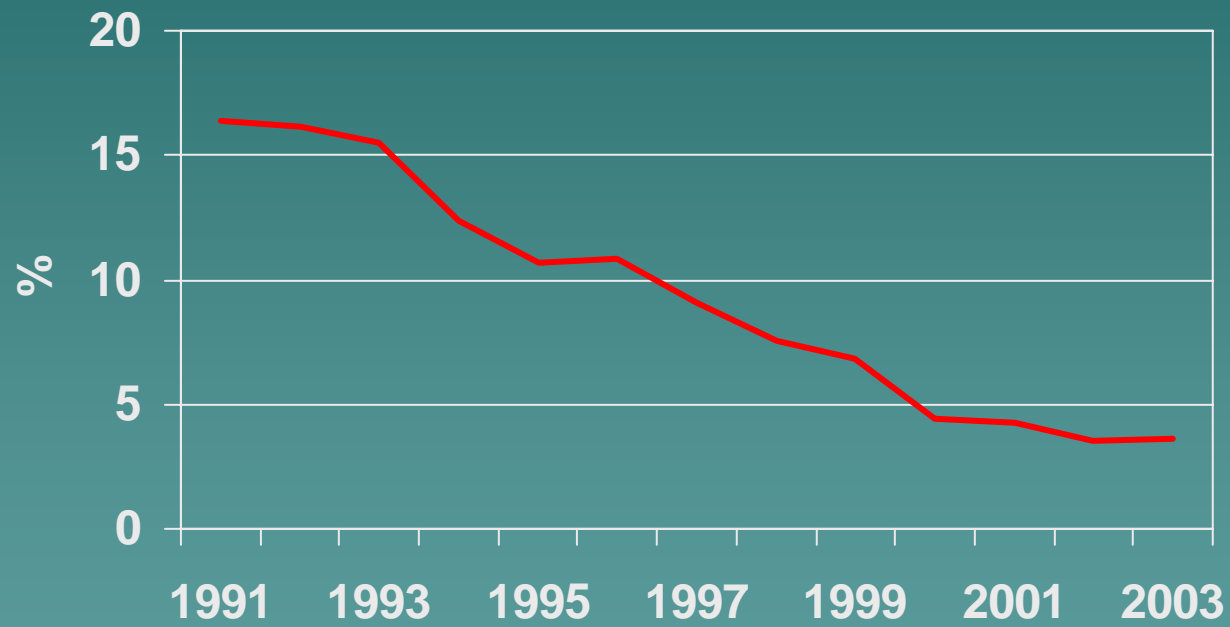
Today: \$0.00000001

Transportation Costs

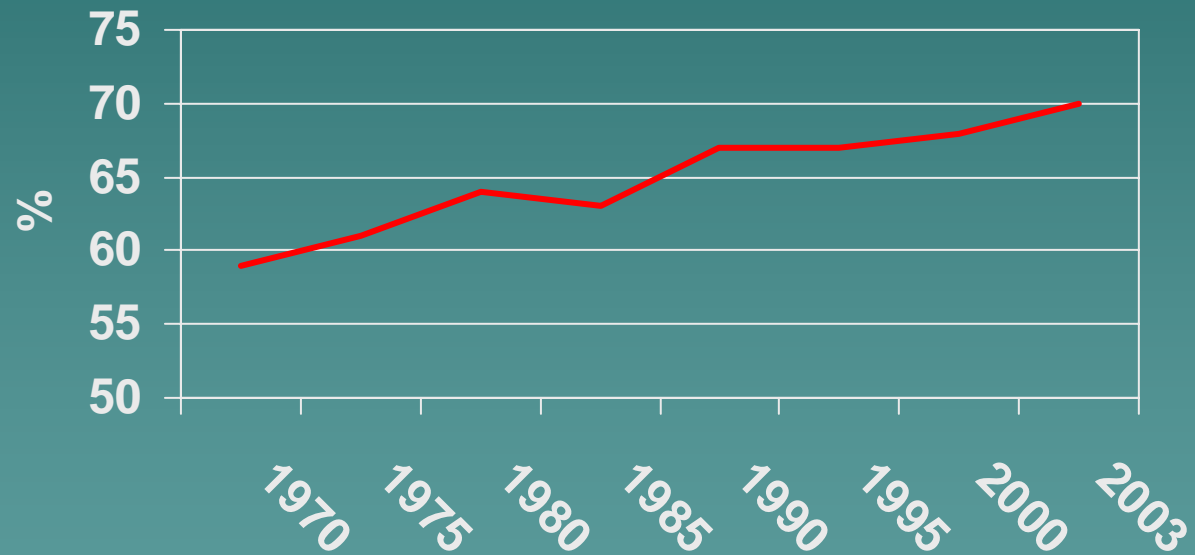
Ocean freight rates fell 50% in the last decade

Air freight rates fell 35% in the last decade

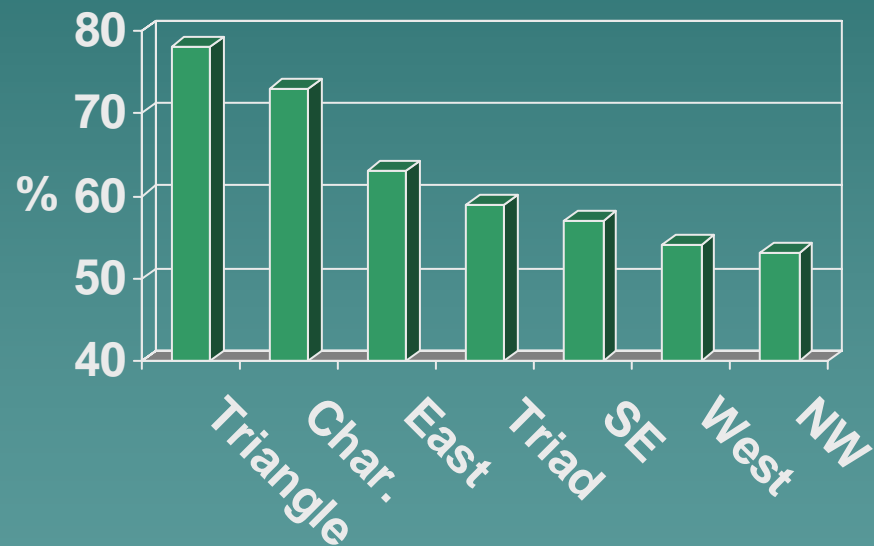
Average Tariff Rates



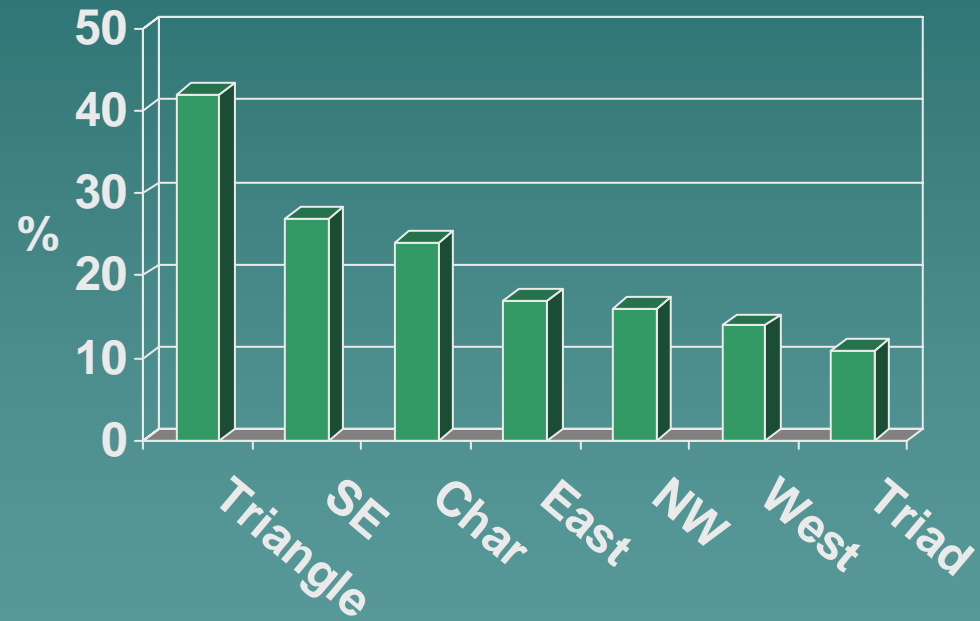
Percent of Consumer Spending on Services



Change in Average Wage Rates, 1990-2004



Change in Employment, 1990-2004



Population and Commuting

Nine counties either lost population or had gains under 5% between 1990 and 2000

Cross-county commuting increased from 26% to 31% of workers between 1990 and 2000

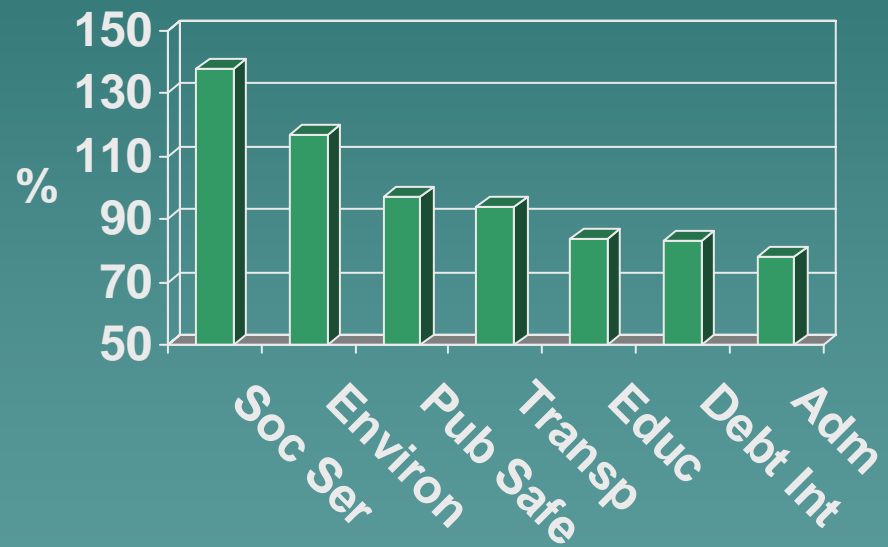
State and Local Government Spending in North Carolina

As a Percent of Gross State Product

1992: 11.2%

2002: 11.3%

Change in NC Annual Nominal Public Spending, 1992-2002



NC Public Spending Trends, 1992-2002

Growing faster than GSP:

Social Services

Environment

Public Safety

Transportation

Growing slower than GSP:

Education

Debt Interest

Administration

NORTH CAROLINA DEMOGRAPHIC PROJECTIONS

% Change, 2004-2015

Total	19%
Ages 0-5	15%
Ages 6-17	16%
Ages 18-24	19%
Ages 25-64	17%
Ages 65+	33%

Job Projections: Gainers (by % gain)

Job	Wage
Medical assistants	Low
Network analysts	High
Physician assistants	High
Home health assistants	Low
Health technicians	Low
Computer engineers	High
Physical therapists	Medium

Job Projections: Losers (by % loss)

Job	Wage
Farmers	Low
Seamstresses	Low
Word processors	Low
Clerks	Low
Secretaries	Low
Equipment assemblers	Low
Computer operators	Medium
Mail sorters	Medium

The Next Breakthroughs?

(from Michael Mandel)

Advanced telecom

Nanotechnology

Biotechnology

Fuel cells, solar power

Space

THE BIG PICTURE

World **IS** Getting Smaller

Implies More Competition, both for
Producers and Workers – Increased
Importance of Productivity

Benefit: Greater Variety, Lower Prices

Implications for Educators

Economic change is more rapid and unpredictable

Economic change is increasingly tied to technological change and world conditions

Implications for Educators (con't)

Information is abundant; knowing
how to use it is scarce

Prescriptions in North Carolina vary
by region